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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/950,060	09/12/2001	Katsuya Shimomura	2001_1279A	1528
513	7590	09/27/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			LE, HUYEN D	
			ART UNIT	PAPER NUMBER
			2643	

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/950,060	Applicant(s) SHIMOMURA ET AL.	
	Examiner HUYEN D. LE	Art Unit 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10-45 is/are pending in the application.
- 4a) Of the above claim(s) 10-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-33 and 36-45 is/are rejected.
- 7) ☒ Claim(s) 34 and 35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. This application contains claims 10-29 drawn to an invention nonelected with traverse in Paper filed 06/22/04. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### *Drawings*

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plate comprising a stopper for the yoke (claim 38) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified

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and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. Claim 38 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not disclose that a plate of the magnetic circuit comprises a stopper for the yoke.

4. Claim 38 recites the limitation "said plate" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 30-31, 33, 36 42 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Coen (U.S. patent 3,176,086).

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Regarding claims 30, 36, 42 and 45, Coen teaches a loudspeaker that comprises a magnetic circuit (12, 14, 34, 50) having a yoke and a magnetic gap (54), a frame (20) having a clip section (32), a voice coil (56), and a diaphragm (not shown, col. 1, lines 69-70). As shown in the drawings, the yoke has an expansion that is inserted underneath the clip section, and the frame is coupled to the yoke by the clip section and the expansion (figures 1, 2, 3).

Regarding claim 31, Coen shows the frame that has at least one additional clip section and the yoke that has at least one additional expansion for coupling the frame to the yoke (figure 2).

Regarding claim 33, as broadly claimed, the yoke shows the bottom portion of the yoke that is fitted to the outer cylindrical portion of the yoke at a step as claimed (figure 1).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 32 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coen (U.S. patent 3,176,086).

Regarding claim 32, Coen does not specifically teach that the frame (20) is made of plastic. However, the examiner takes the Office Notice that providing the frame made of plastic is known in the art.

Therefore, it would have been obvious to one skilled in the art to provide the frame of Coen to be made of plastic material for an alternate choice and providing a better connection for connecting the magnetic structure to the flange of the frame.

Regarding claim 37, Coen does not specifically teach a heat radiator as claimed. However, providing a heat radiator for reducing heat in the magnetic circuit is very well known in the art.

Therefore, it would have been obvious to one skilled in the art to provide a heat radiator in the magnetic circuit of Coen for better reducing heat in the magnetic circuit.

9. Claims 37, 39 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coen (U.S. patent 3,176,086) in view of Stewart (U.S. patent 6,373,957).

Regarding claims 37, 39 and 41, Coen does not specifically teach a heat radiator that is a cap as claimed. However, providing a heat radiator contacting the yoke in the magnetic circuit for dissipating heat is known in the art.

Stewart shows a heat radiator (70, 72, 74, 78, 82, 84) for contacting the yoke in the magnetic circuit.

Therefore, it would have been obvious to one skilled in the art to provide a heat radiator, as taught by Stewart, in any portions of the yoke in the Coen speaker such as the bottom portion or the cylindrical portion of the yoke for an alternate choice and better reducing heat in the magnetic circuit.

10. Claims 37 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coen (U.S. patent 3,176,086) in view of Sugawara (JA 0121613) or Henricksen (U.S. patent 3,991,286).

Regarding claims 37 and 39-41, Coen does not specifically teach a heat radiator that is a cap or a ring as claimed. However, providing a heat radiator contacting the parts in the magnetic circuit or protruding into a space of a voice for dissipating heat is known in the art.

Sugawara or Henricksen shows a heat radiator (figures 3 and 5 in Sugawara and figure 3 in Henricksen) contacting the yoke and protruding into a space of a voice as claimed.

Therefore, it would have been obvious to one skilled in the art to provide a heat radiator, as taught by Stewart or Henricksen, in the Coen speaker for better dissipating heat in the magnetic circuit.

11. Claims 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coen (U.S. patent 3,176,086) in view of Knowles (U.S. patent 2,295,483) or Cahill et al. (U.S. patent 5,940,522).

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Regarding claims 43-44, Coen does not specifically teach a perforation as claimed. However, providing a hole or a perforation in the coil former that is lower than the level of a damper in a speaker is known in the art.

Knowles or Cahill shows the holes (138, figure 6 in Knowles and 20, figure 1 in Cahill) in the coil bobbin that are lower than the level of the damper.

Therefore, it would have been obvious to one skilled in the art to provide the holes in the coil bobbin, as taught by Knowles or Cahill, in the Coen speaker for better air flowing and removing heat from the voice coil.

#### ***Allowable Subject Matter***

12. Claims 34-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (703) 305-4844. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CURTIS KUNTZ can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HL  
September 19, 2004



HUYEN LE  
PRIMARY EXAMINER